NSAID-Induced Acute Liver Failure: A Forgotten Culprit

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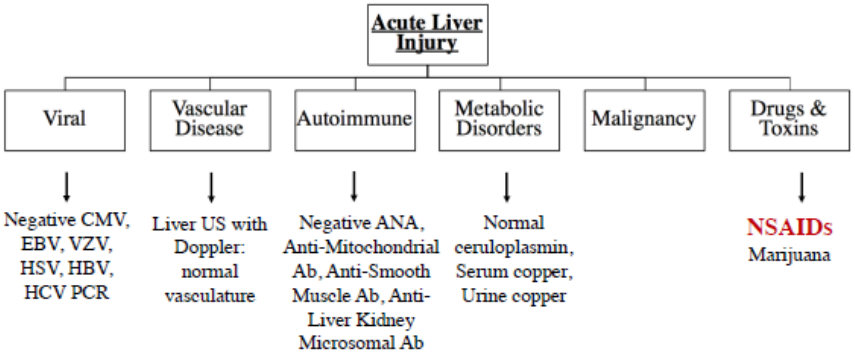
INTRODUCTION

- > 30 billion over-the-counter NSAID tablets sold and > 70 million NSAID prescriptions filled annually

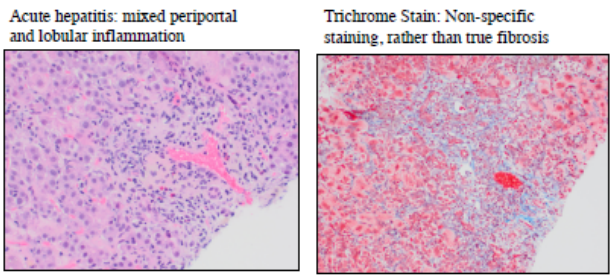
PRESENTATION

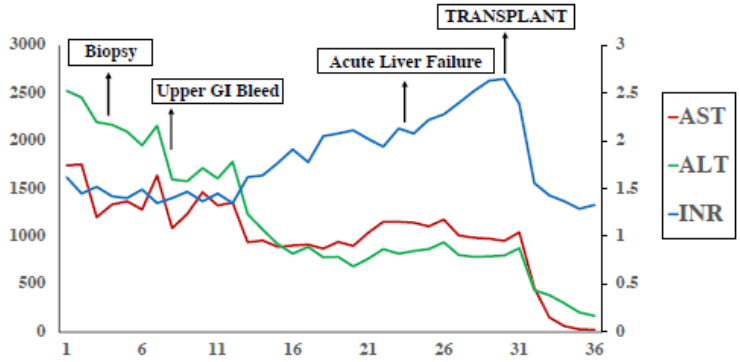
- 53 year-old previously healthy man
- Nausea and vomiting x 1 week
- Social Hx: edible marijuana
- Medications: Ibuprofen PRN
- No personal/family history of liver or autoimmune disease
- Exam: Well appearing, scleral icterus, diffuse jaundice, A&Ox3, no asterixis
- AST 1745, ALT 2526, Tbili 28, INR 1.6

DIFFERENTIAL DIAGNOSIS



CLINICAL COURSE





DISCUSSION

- Several NSAIDs have been withdrawn from the market due to hepatotoxicity
- Incidence of hepatotoxicity from NSAIDs: 1-9 per 100,000
- Rate of hepatotoxicity is not equal among NSAIDS
  - Ibuprofen has one of the highest safety profiles
  - Diclofenac carries a higher proportion of hepatotoxic events
- Heterogeneous phenotype: mild transaminase elevation -> acute liver failure
- Degree of injury is dose-dependent
- Mechanism - not well understood: idiosyncratic reaction in susceptible individuals

1. **NSAID-induced hepatotoxicity is an uncommon but potentially serious adverse drug reaction**

2. **When considering the cause of acute liver injury, close evaluation of a patient's medications, including over-the-counter agents should be completed**